

## CHAPTER 6

### EXCAVATION NARRATIVE

THE FIRST TASK IN THE CANNERY SITE EXCAVATION was to clean away the accumulated trash and brush from the site, which took the DelDOT crew several days during December 1988. Excavation began December 27 and ended May 20, 1989. A well-preserved length of foundation (FIGURE 9) revealed in the first cut provided an auspicious starting-point.

Today the cannery site belongs to three different parties. The south part of the lot contains a duplex apartment house. The waste dump, formerly owned by the steamboat company, remained a separate parcel until the Department of Transportation purchased it. The cannery site itself belongs to a real estate firm that has subdivided the former Richardson farm into small estates.

Investigations were confined to the northeast corner of the cannery lot, the documented location of the main building (FIGURE 8). On the north and east, the high flat site is bordered by large trees, mostly cherry and locust, evidently the remains of a hedgerow that once edged the high ground. Before the apartment house was built, about thirty years ago, the farmer plowed to the edge of the hill. Since then, the lot north of the duplex apartment has been allowed to grow up in trees, some of which are becoming fairly large.

When the current work began, the site was a thicket of fallen trees, limbs, underbrush, trash, and young trees. The first investigations (Heite and Heite 1989) consisted of shovel test pits and limited larger excavation units, one of which (FIGURES 6,7, ER 68), plumbed the cellar hole. The tests had demonstrated the presence of significant cannery remains, which subsequently were determined to be eligible for listing in the National Register of Historic Places (APPENDIX 3 ).

Because part of the site could not be avoided, it was determined that data recovery was in order. Data recovery was divided into three tasks: the cannery site, the canmaking waste dump, and a watching brief on other areas of the project. Peculiar conditions of each task required specialized procedures for each task.

Figure 8

Site plan for data recovery project

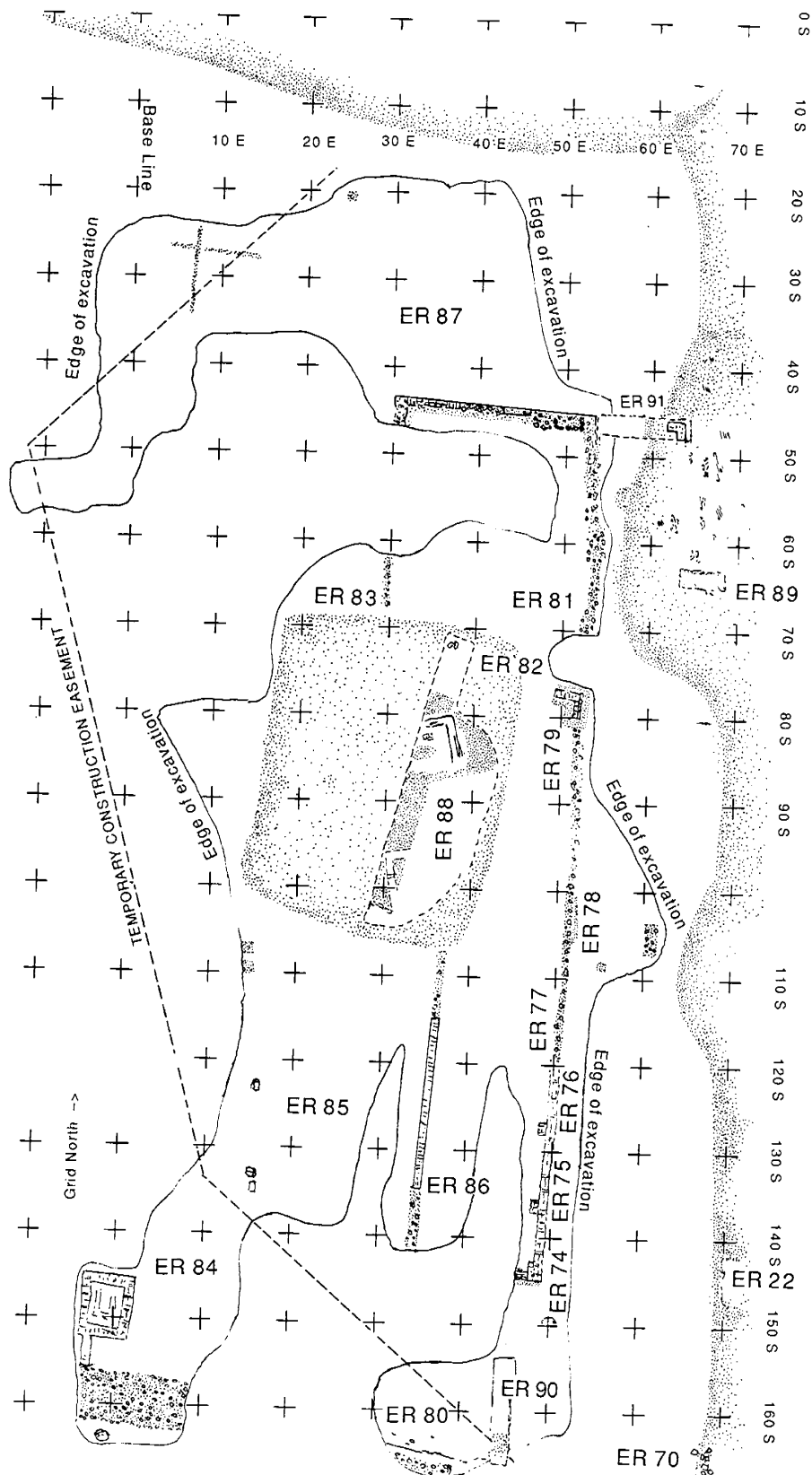


Figure 9

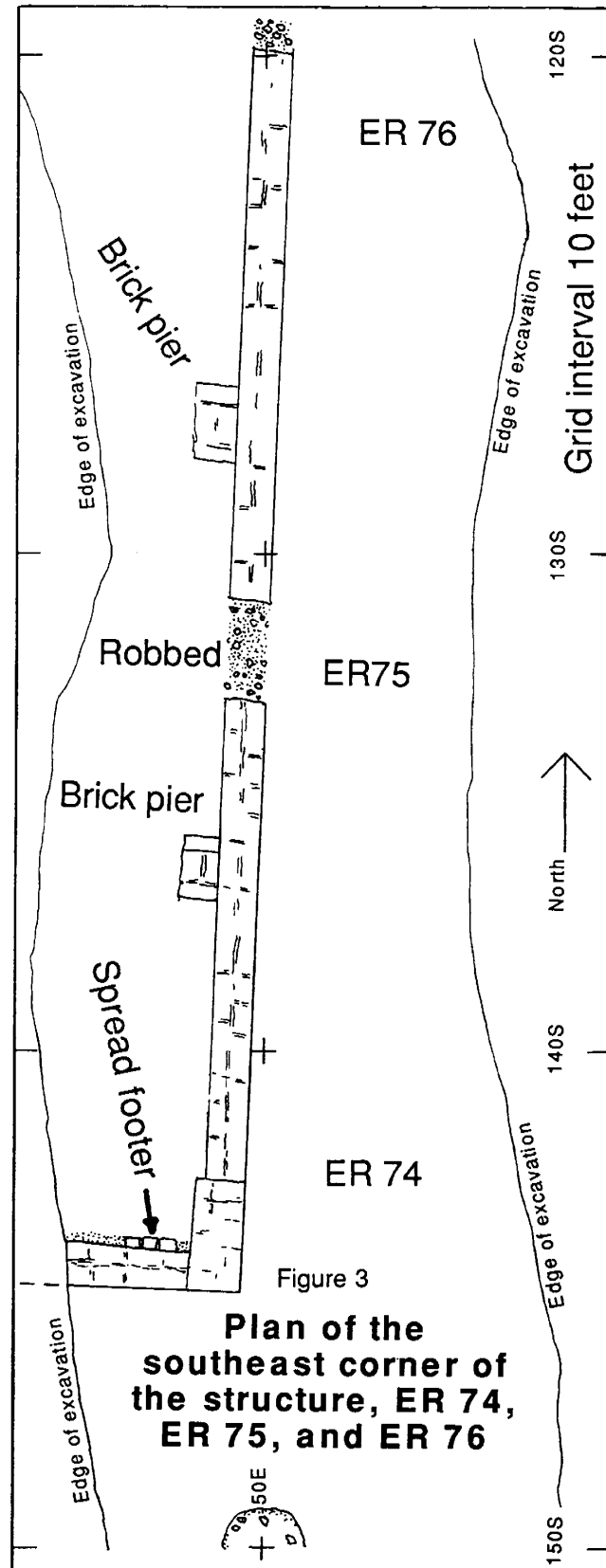




Plate 31  
The hillside before excavation, looking west across the old road.

Phase I and II testing had demonstrated that the cannery building sites had been extensively robbed, and that the lot had been subsequently cultivated. The cultivated topsoil, unlikely to contain artifacts *in situ*, could be removed by a machine, but the delicate robbed walls below would require hand excavation.

Around the edges, several large trees had toppled, leaving substantial areas of disturbance. Standing trees occupied a significant part of the site perimeter, especially along the bank. To push them down would have meant disturbing a significant area, yet their limbs would be a nuisance for the excavators. It was decided to leave the trunks and work around them, thereby avoiding the danger of disturbing the soil during tree removal.

Since the site was not deeply stratified, the two cannery periods were unlikely to be physically separated in vertical layers; we could not know how much of the first cannery had survived the first fire to be incorporated into the second. The two fires, and the subsequent cleanups, were material events large enough to leave a record over the entire site; unfortunately, the evidences of both fires could be expected to be similar, if not indistinguishable. Such indicators as brick size, mortar color, and structure dimensions were likely to be the only evidence useful in separating the two periods.

Excavated areas snaked among the trees, leaving larger trees on undisturbed islands and peninsulas of original topsoil that proved useful as control balks for the stratigraphic record.



Plate 32  
View eastward across the first cut, toward the river



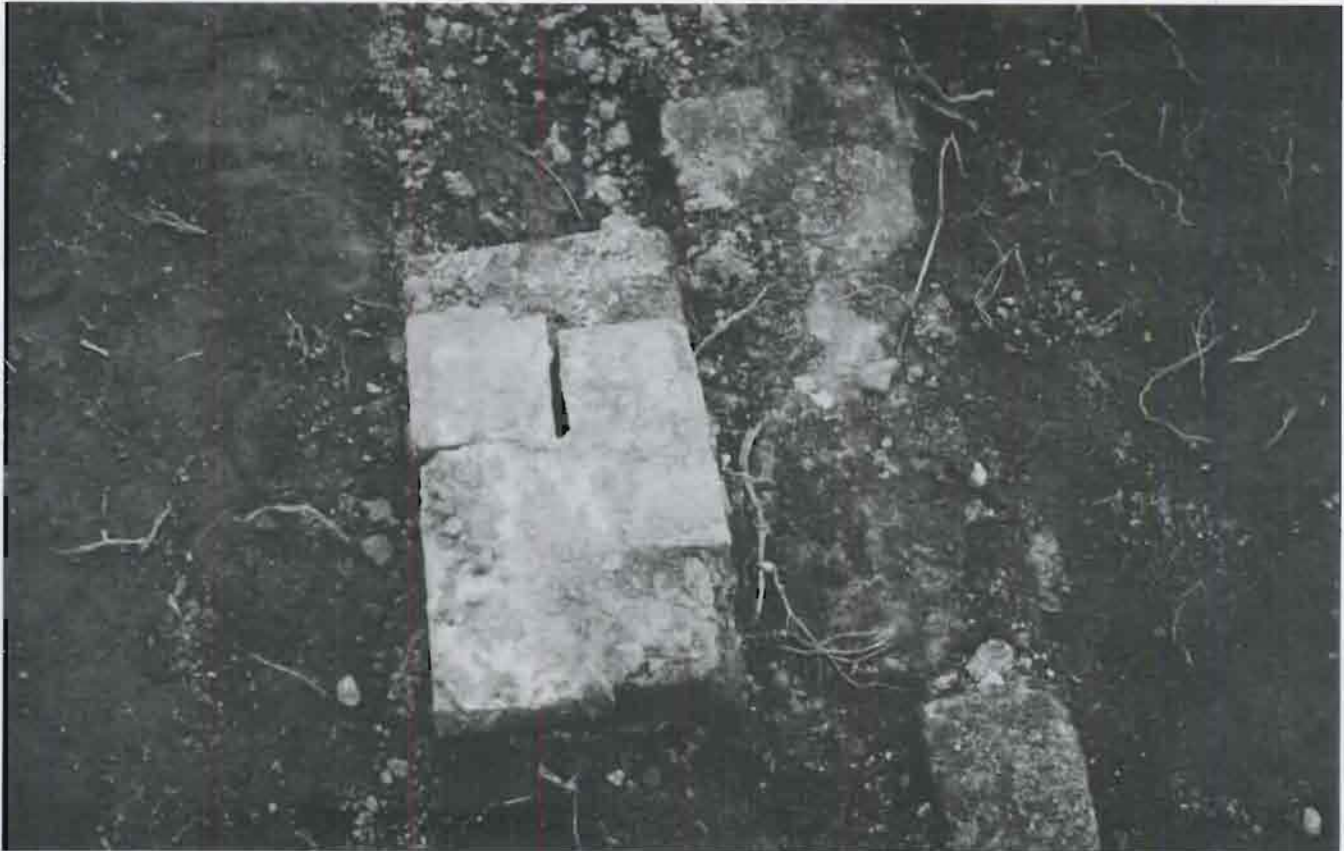


Plate 33

Brick pier found in the first backhoe cut, adjacent to the brick foundation of the east wall (right) but not bonded to it. See Figure 9 for location.

In the center of the proposed construction area was a depression, filled with brown, loamy topsoil as deep as two feet below the surface. Testing in the depression, ER 68 of the first project, had revealed the existence of a cellar, probably of a boiler room. Again, a backhoe was judged to be the only practical means for removing the overburden (FIGURE 10).

Backhoe excavation is extensive rather than intensive; on a site with no topsoil features the machine lets an archaeologist view a wide area without the effort and expense of hand digging the unproductive spaces between scattered features. On most industrial sites, which consist primarily of large building foundations and isolated trash deposits, a machine is the only practical way to dig the wide area.

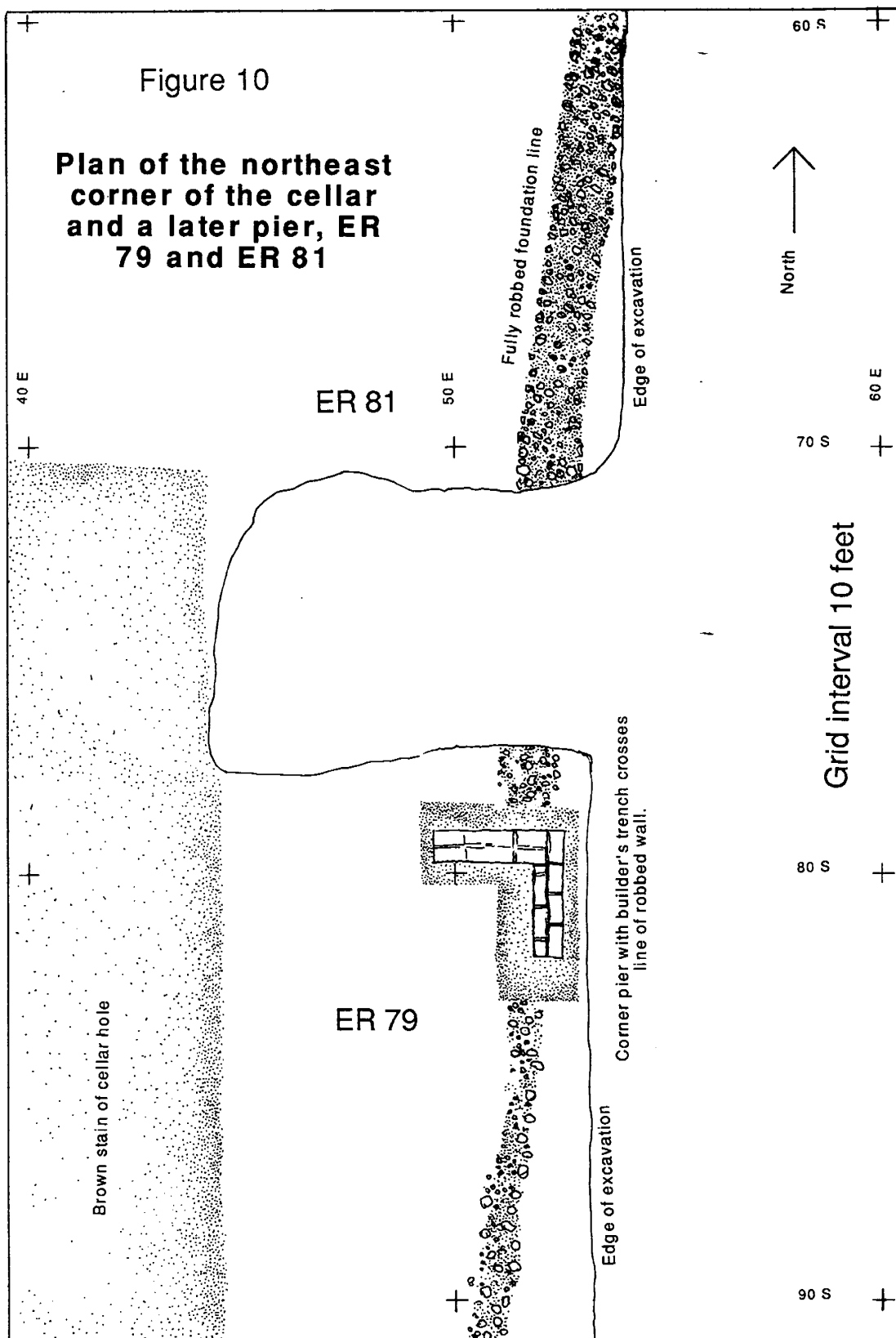




Plate 34

East wall line, ER 75, looking west, with two of the brick piers in place.

Special techniques are necessary, however, if the backhoe is to substitute for the archaeological shovel and trowel. Backhoe operators have been trained to dig downward, for the purpose of removing dirt; archaeologists ask the backhoe to shave the surface, like a huge trowel, conforming to soil conditions rather than to construction objectives. At Lebanon, a skilled operator was able to dig the site to a level of accuracy within fractions of an inch. The order of excavation was dictated primarily by the operator's needs to provide himself working space and room to pile spoil without running across open, unrecorded, units. Excavation register entries for this work are described in terms of a swath near identified grid coordinates, rather than as neat waffle-style gridded square holes.

Vandalism was a special concern, which proved to be justified. These woods are a favorite haunt of the local pre-adolescents, whose tree fort was reduced to firewood by a state work crew. Between projects, all but one of the grid stakes had been pulled, and several large holes had been dug in emulation of archaeological tests. There was ample evidence that one of the children had received a machete for Christmas. To thwart the youngsters' interference, work as scheduled so that machine digging would be performed early in the week, with the holes fully recorded by the weekend. This strategy worked



reasonably well, but stakes and foundations were destroyed twice, as the project continued on through the spring.

Excavation began with three shovel test pits along the first line to be stripped. These pits along the 50' east line (ER 71, 72, and 73), in an area outside the original test grid, revealed that the plowsoil overlay robbed brickwork, as had been expected. ER 71, at 130' south 50' east, exhibited burnt red subsoil. This was the first area opened when the machine arrived (FIGURES 8-9). The first cut ran from 160' south to 80' south along the 50' east line. As it happened, the best -preserved segment of wall found during the project ran along the 50' east line, and was revealed by this cut.

ER 74, along the line between 140' and 150' south, contained the remains of a brick building corner, three courses surviving in place (FIGURE 9). This was the most extensive intact brickwork that would be found on the site. The robber trench contained a copper soldering iron tip (FIGURE 26B) and an iron bail. The next segment, ER 75, from 140' to 130' east, contained more of the wall and a pier of slightly different construction. The mortar in the pier was white, while the mortar in the wall was yellow. The two structures were not bonded together; the pier appeared to predate the linear foundation. ER 76, between 130' and 120' east, also contained a pier, similar in all respects to the other one, and ten feet from it, center to center. In front (east) of this pier was a patch of severely burned soil and considerable loose tin scrap. Another patch of burned red soil was found at about 121' south, and about a foot east of the foundation. This was the last segment of the east wall with any bricks in place. The ghost wall in ER 77, between 110' south and 120' south, was robbed out; the robber trench contained considerable unburnt coal along with the mortar and chips of brick.

The next ten feet of wall, ER 78, was also robbed. At this point, there was a break in the row of trees, and the backhoe operator was able to cut a transect almost to the brow of the hill. At the edge of the flat was a robbed-out brick structure, about the size of a pier, consisting mostly of yellow mortar and small brick fragments. Immediately east of this feature was a pile of can waste that extended to the bottom of the hill. The tin scraps had evidently been lying against the brick structure when it was robbed, for the edge of the mass had slumped into the robber debris.

ER 79 was the rest of this swath, from 100' south to a large tree about 78' south along the 50' east line. The wall was, as before, fully robbed out. The robbed rubble was interrupted by a brick feature that was apparently newer. This feature was an L-shaped corner, three feet on a side, standing in a well-defined builder's trench (PLATE 35, FIGURE 10). This structure was on the line of the previously-exposed wall, and 65 feet north of the corner encountered in ER 74.



Plate 35

L-shaped footer in ER 79, which was built after the demolition of the brick wall

Figures 11-12

Brick boiler base

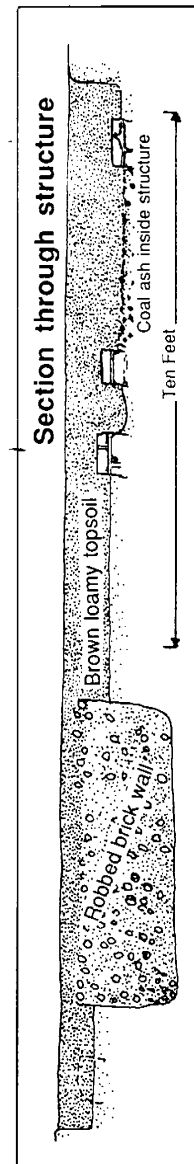
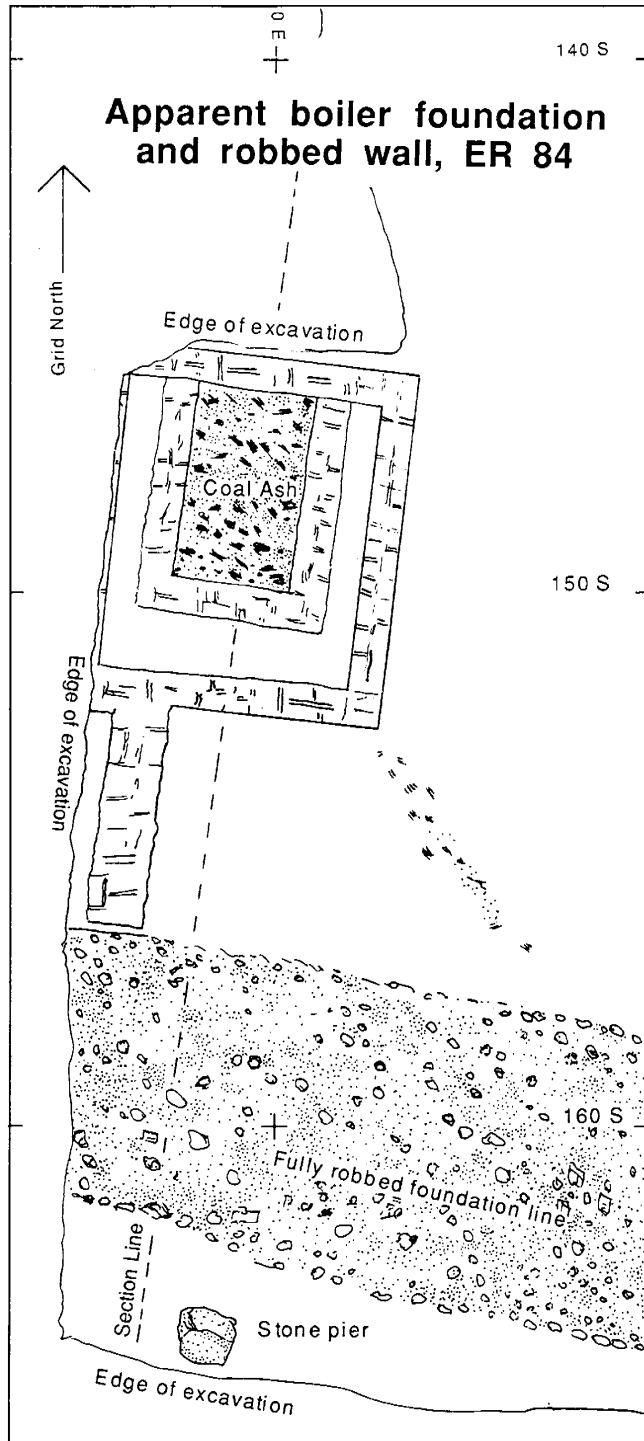




Plate 36

Boiler base at grade, west of the building, with adjacent wall to the south

In ER 80 (FIGURE 17), at the south end of the trench beyond 160' south and between 30' and 50' east, was a robbed wall that differed in several respects from the first one discovered. This robber rubble was loose, without earth admixture, and the mortar was white rather than yellow. North of the wall was a depression lined on the bottom with tin waste and filled with yellow soil mixed with brick rubble, wood charcoal, and trash. Since this feature lay on the edge of the impact area and outside the area needed for backhoe operations, it was left for the end of the project, when ER 90 was excavated in this same area.

A second session with the backhoe, January 19, uncovered a swath across the depression and out to the southwest corner of the site. The beginning of this trench, between 60' and 70' south and about 50' east, uncovered more of the robbed eastern wall. ER 82, to the west of that feature, was an expanse of featureless yellow subsoil on the north, clearly separated from the area of brown loam by a sharp, straight line. This was interpreted (correctly, it turned out) as the edge of a cellar.



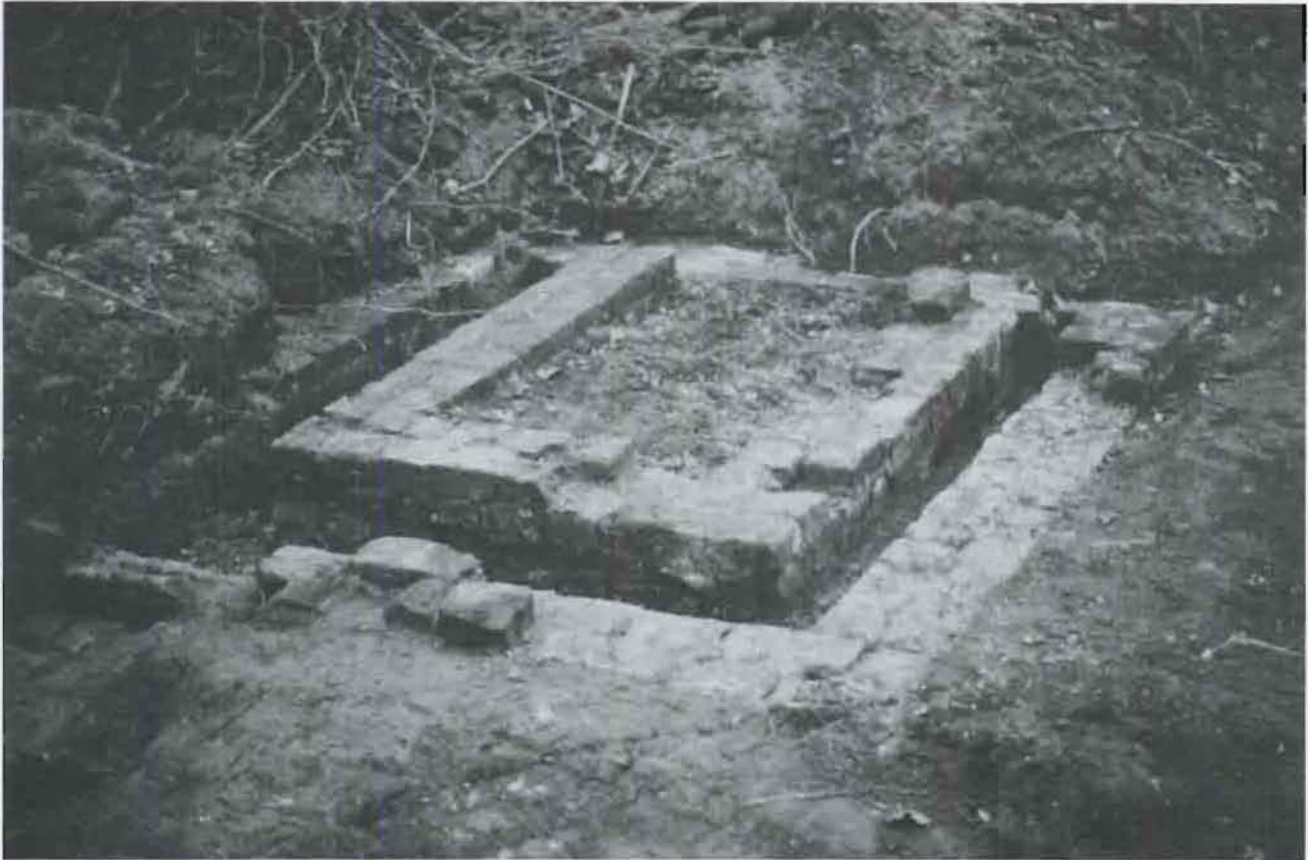


Plate 37

Close-up perspective view of the boiler base, showing the double-walled construction features. The bricks were all re-used from some other structure.

Imbedded in the brown soil was a small robbed brick feature, labelled ER 83, which appeared to be the remains of a pier built over the filled cellar. North of the cellar hole, a segment of robbed wall, less than ten feet exposed, faded away just short of reaching the cellar hole.

Near the present property line, and outside the construction area, was the largest feature discovered, consisting of three related structures (PLATES 36-37, FIGURE 11). A roughly square double-walled brick structure was undoubtedly a boiler base or firebox. It was built entirely of salvaged brick, few of which were larger than half a brick. A brick wall fragment was attached to the the south; these structures were joined with yellow mortar, but there was old white mortar adhering, indicating that the white mortar was used in an earlier phase than the yellow mortar.



Plate 38

Rubble-filled robbed wall trench immediately south of the boiler bases, as uncovered in the backhoe trenching.

Immediately south of these structures was a three-foot-wide robber trench, which had been dug after the demolition of the first structure. The fill of this trench was loose, and not mixed with soil as were most of the robber trenches on the site. The other example of this kind of fill was the trench in ER 80, which apparently is an extension of this same structure.

Beyond the robbed wall was a stone building pier, of the same micaceous "Brandywine Granite" material that is common all over the Delaware coast. Two more, similar piers, ten feet apart, would be found in the next unit, ER 85 (FIGURE 13), the space between 140' and 110' south and west of 20' east. Close examination of a point ten feet south of the southern pier revealed some stone chips, but no unequivocal evidence of a third pier in that line. These piers, combined with the brick piers on the east side, gave strong evidence that the building was erected on a system of ten-foot bays.



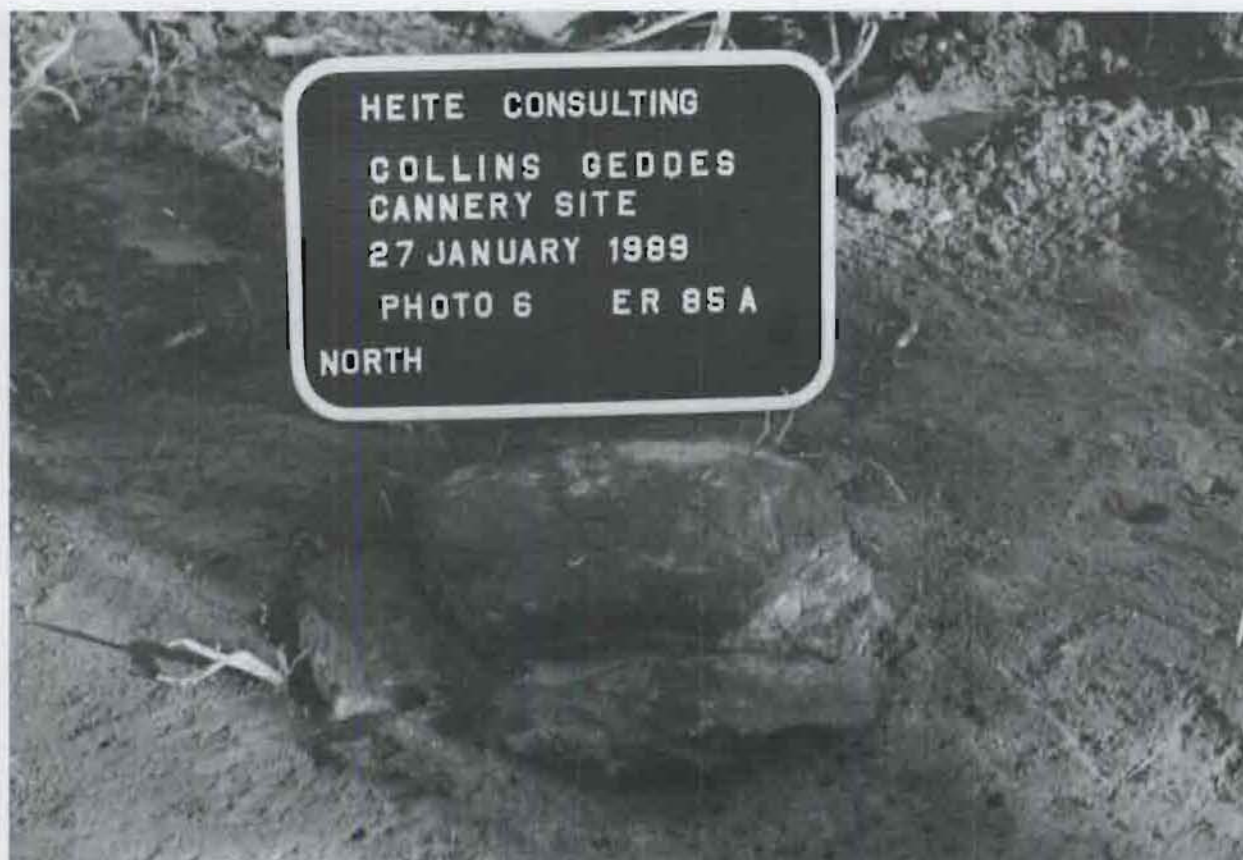


Plate 39

Stone building pier, one of three discovered on the west perimeter

A third backhoe session was arranged on January 30. At this time, the center of the putative building site was opened, revealing a line of header bricks, the first course of a wall. This, too, had been robbed; the surviving portion had been buried more deeply into the slope surrounding the cellar hole. Less than a foot of the second course survived where it was buried more deeply.

The backhoe came again on February 13. A cut through the cellar hole, ER 88, revealed a dense layer of robber rubble on the bottom (FIGURE 14). This cut was subsequently cleared, revealing two brick structures still in place on the cellar floor. One, on the south, was entirely outlined in robber debris, while the other had substantial brickwork surviving. These were interpreted as boiler bases, since they resembled the one in ER 84. Unlike the other example, however, these were made of new, well-made brick of the same dimensions as the north wall foundation. The packed sand floor surrounding the structures was burnt to a ceramic-like hardness; on it lay a stratum of wood ash containing many nails, which had been cut by the robber trenches.

Caches of nails (PLATE 41) gave testimony that the site had been extensively robbed for wood as well as for brick, thus indicating that destruction was not complete. The backhoe cut intercepted the eastern edge of the cellar, marked by a robbed wall of bricks matching those in the wall in ER 86.

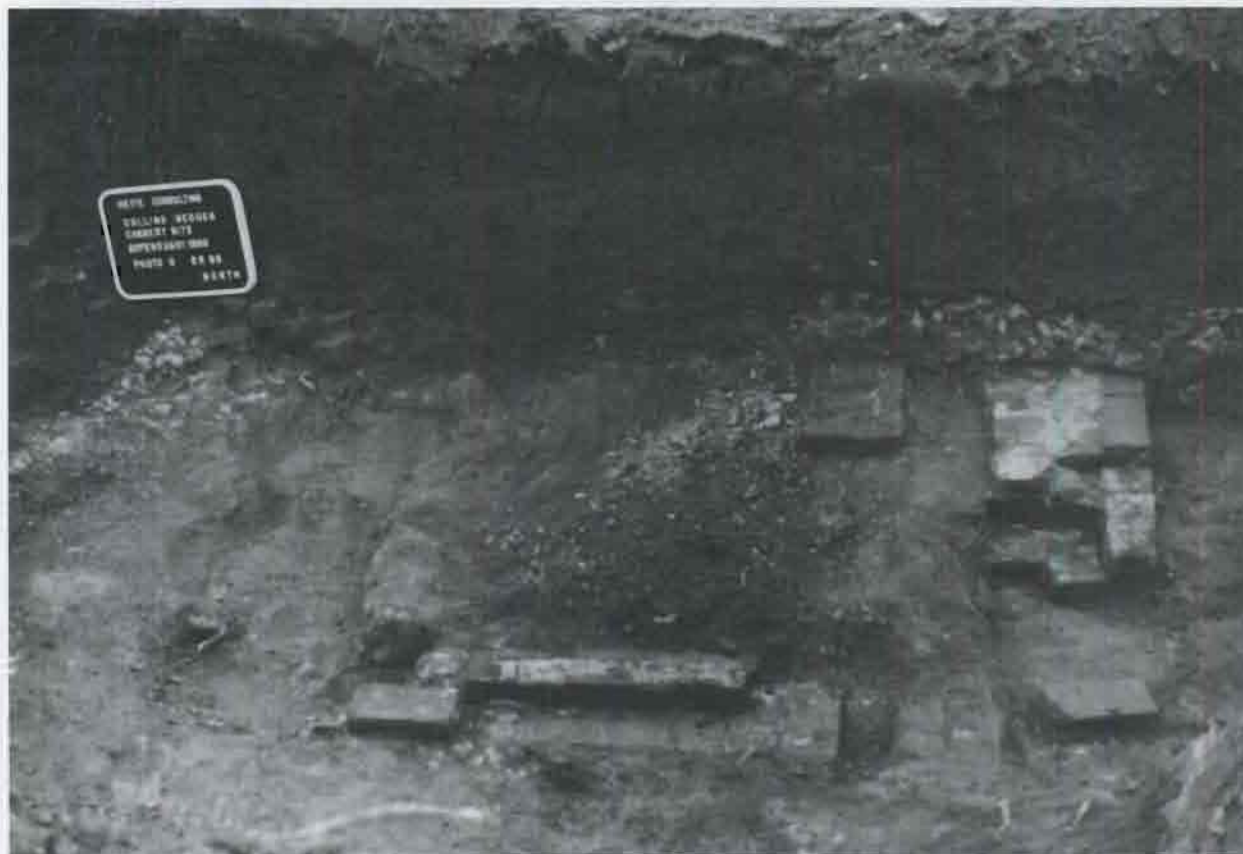


Plate 40

The northern boiler base in the cellar, looking west toward the profile line. Ash fills the center, and the foundation itself is overlain by robber rubble. Most of the fill, above, is loose brown loam. The deep test in the Phase II project penetrated at this point.



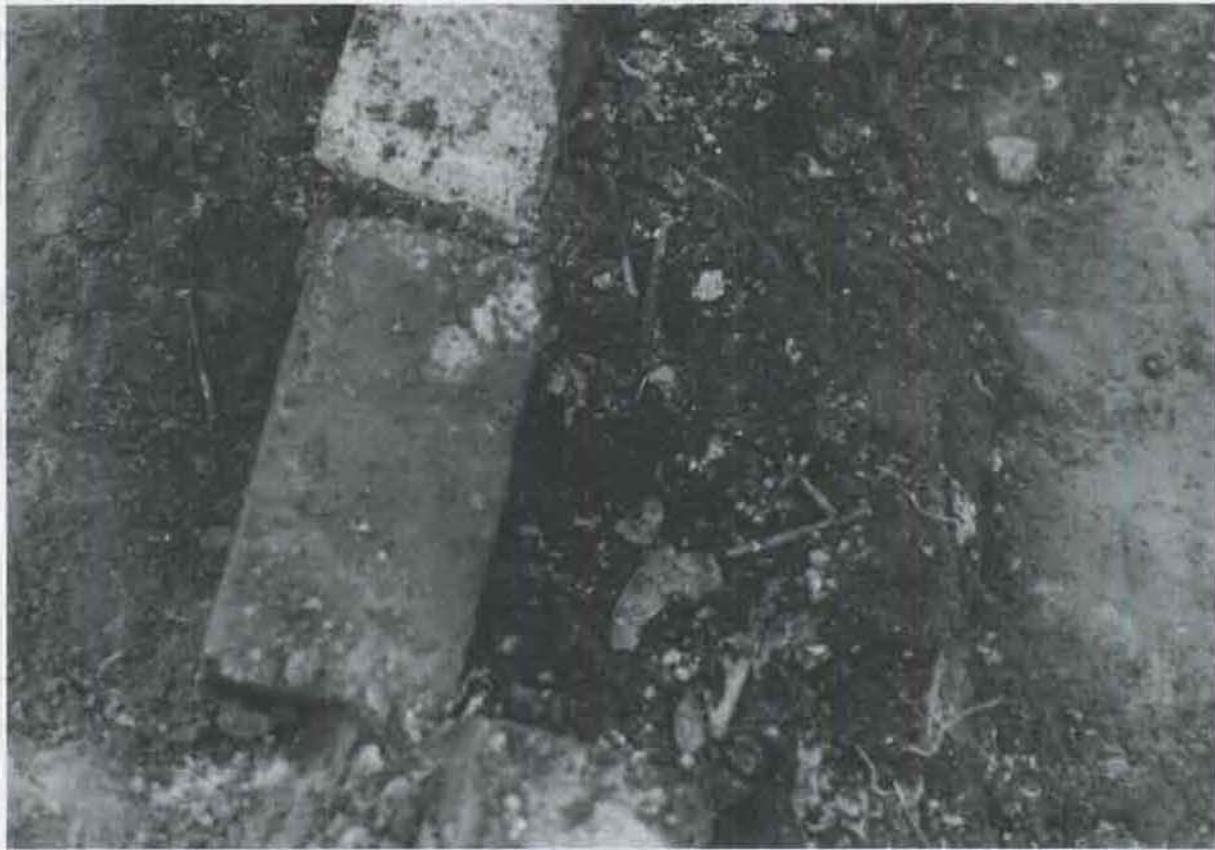


Plate 41

Cache of nails and hardware in a matrix of ash, found adjacent to the south boiler base in the basement indicating salvage work after the first fire.



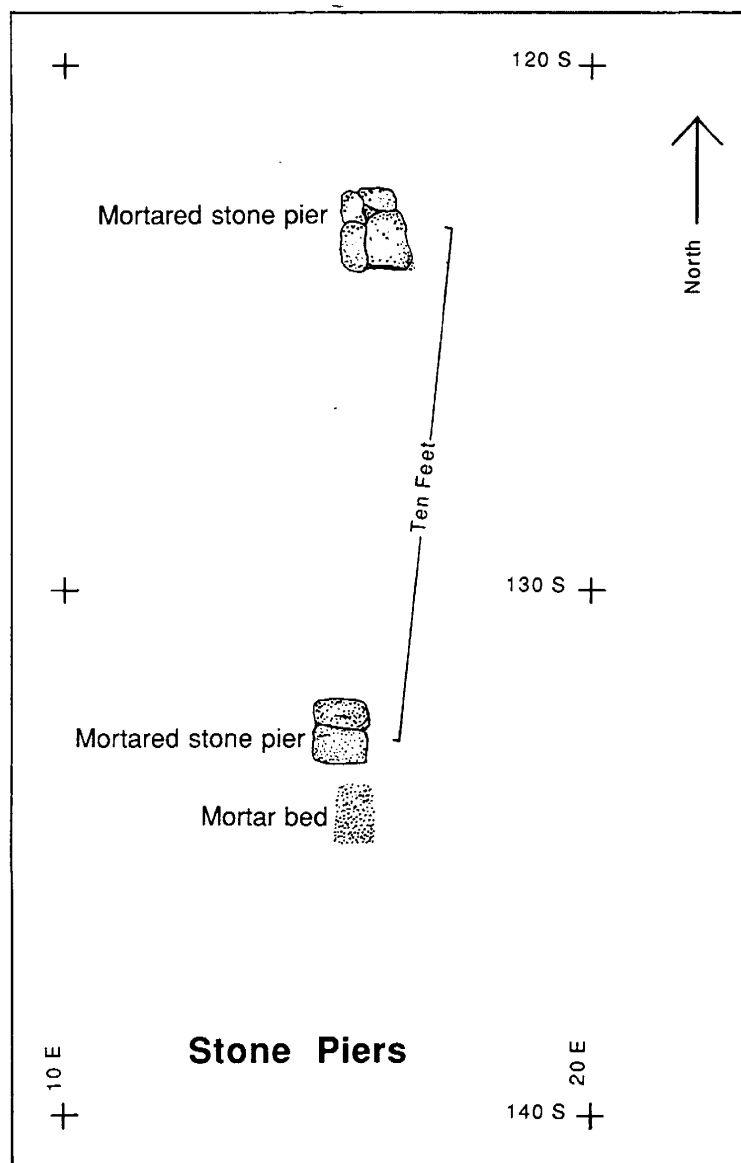
Plate 42

View eastward, showing the one-brick-thick wall found along the middle of the building footprint, ER 86.

Figure 13

Artifacts included a pipe hangar (FIGURE 26C) of the type used on steam lines and a Pamplin-style clay smoking pipe (FIGURE 26B). The earthen cellar floor was irregular, sloping up from the boiler bases.

A final area was cleared to the north of the apparent building site and designated ER 87 (FIGURE 15). A crossed pair of linear stains may be remains of sleepers; an isolated postmold is near the property boundary and may be part of a fenceline. The most significant part of this unit was a wall line, almost certainly the north wall of the same building that had been seen almost exactly a hundred feet away. It was 24 feet long, eight inches wide, with a well-defined builder's trench. The bricks match the bricks found in the cellar. At the east end of this wall, can waste overlay the wall remains. Only a short section of the east wall remained, but it contained two courses in place. Near the middle of the robbed wall, and intruding into it, was the remains of an L-shaped pier that had in turn been robbed out, and was distinguishable only because of the different texture of the rubble fill..



The lack of definitive structural remains in the cellar may be attributed to the zeal of salvagers and to the slope of the cellar hole. The thick layer of loam that seals this hole was evidently created by sheet erosion as the site was cultivated. As topsoil washed into the cellar hole, the plow bit deeper into the foundations, eventually obliterating large segments of wall. In spite of these factors, a significant amount of information was recovered.



Plate 43

Cut through the can-making waste, ER 89; see Figure 16

The final task was to uncover and explore the area of the canmaking waste around the eastern perimeter of the building. Most of the can waste was on the steamboat company lot, where it had been tipped over the side of the hill. At the northeast corner of the main building, the lip of the hill and the pile of canmaking waste came up to the edge of the main building foundation, actually lying against the robbed wall. Clearly the ten-foot side addition described in the insurance declarations could not have existed on

the top of the bluff as it now exists. The next step was to dig away some of the overburden to accurately map the extent of the can-making trash deposit and to attempt to discern what happened to the documented ten-foot wing.

At this point, Mr. Thomas Pickering paid one of his periodic visits to the site. He related a story, handed down from his father, that can waste had been used here to fill a washout in the hill. Mr. Pickering added that can waste had been used to fill a soft place in a road on his farm as well. If tin waste was used extensively for this purpose, then the plant must have produced considerably more waste than is apparent on the surface today. Tinsmith Richard Haddick visited the site and volunteered the information that the amount of waste from tinsmithing operations will depend upon the skill of the person laying out the job, and even today may be as great as 25%.

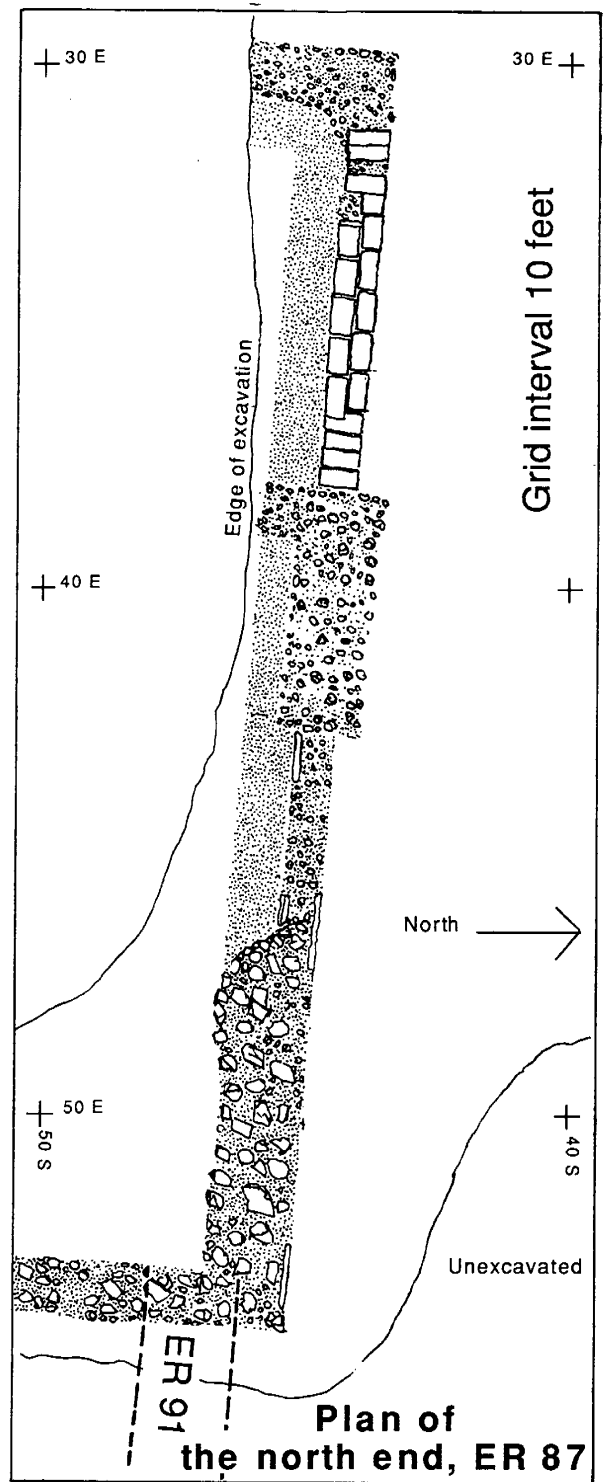
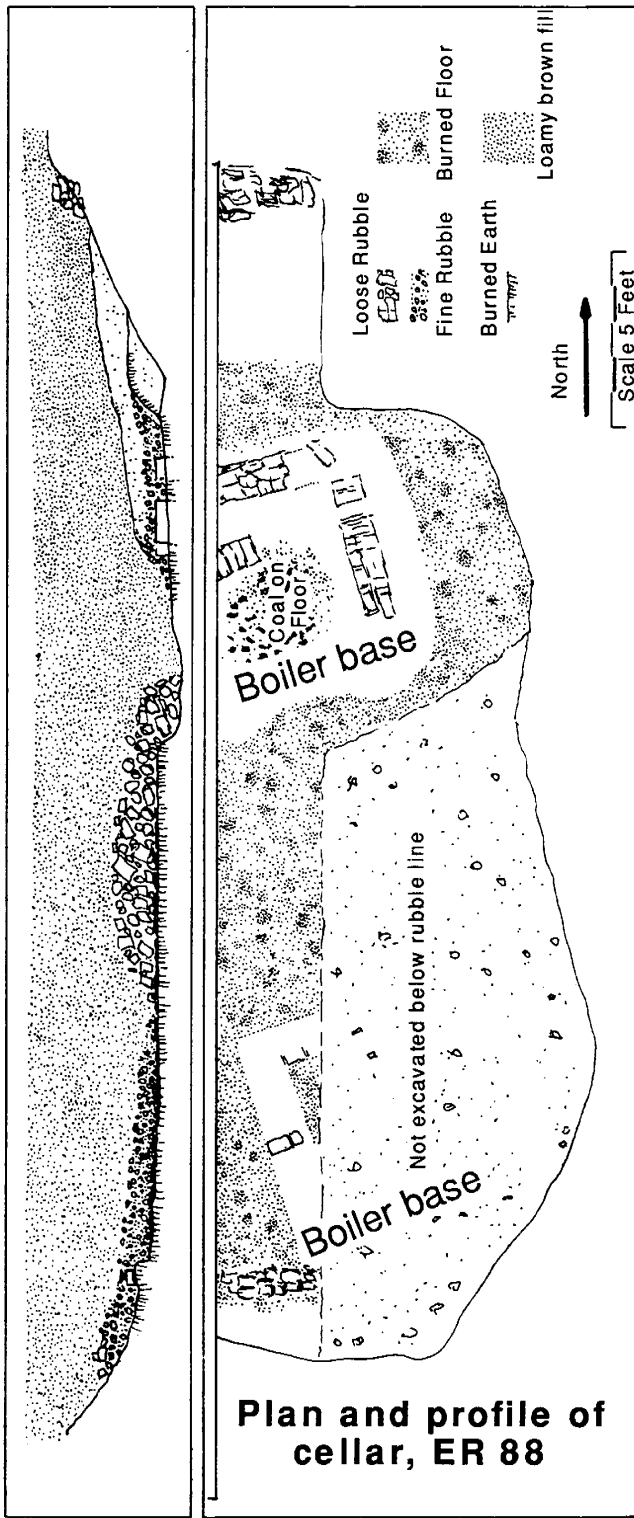
A hand-dug test pit, ER 89, was sunk into the waste pile at what appeared to be a particularly deep point (FIGURE 16). The resulting profile revealed evidence of two construction phases. Lying on the natural subsoil was a deposit of disturbed yellow soil with some iron flecks, possibly nails, overlain by a topsoil containing coal. This in turn had been disturbed when a second layer of building debris, containing some can waste, was deposited. On top of this second deposit was a layer of can waste, which in turn was covered by topsoil. The can waste consisted of a rusted upper layer and a still-shiny lower layer. A more recent topsoil covered the deposit and continued up the hill.

At the extreme south end of the site was an area containing considerable can trash and brick rubble that had been set aside for later investigation, ER 80. When the backhoe came April 21 to backfill much of the site, the area around ER 80 was enlarged and scraped to subsoil. The expanded unit was called ER 90 (FIGURE 17). A trench was also cut at the northeast corner of the foundation and labelled ER 91 (FIGURE 18); this trenching was stopped when the machine encountered a foundation ten feet from the building corner. The machine operator went on and finished backfilling the rest of the site.

These two trenches proved to be among the most complex units on the site, and some of the most interesting.



Figure 14-15



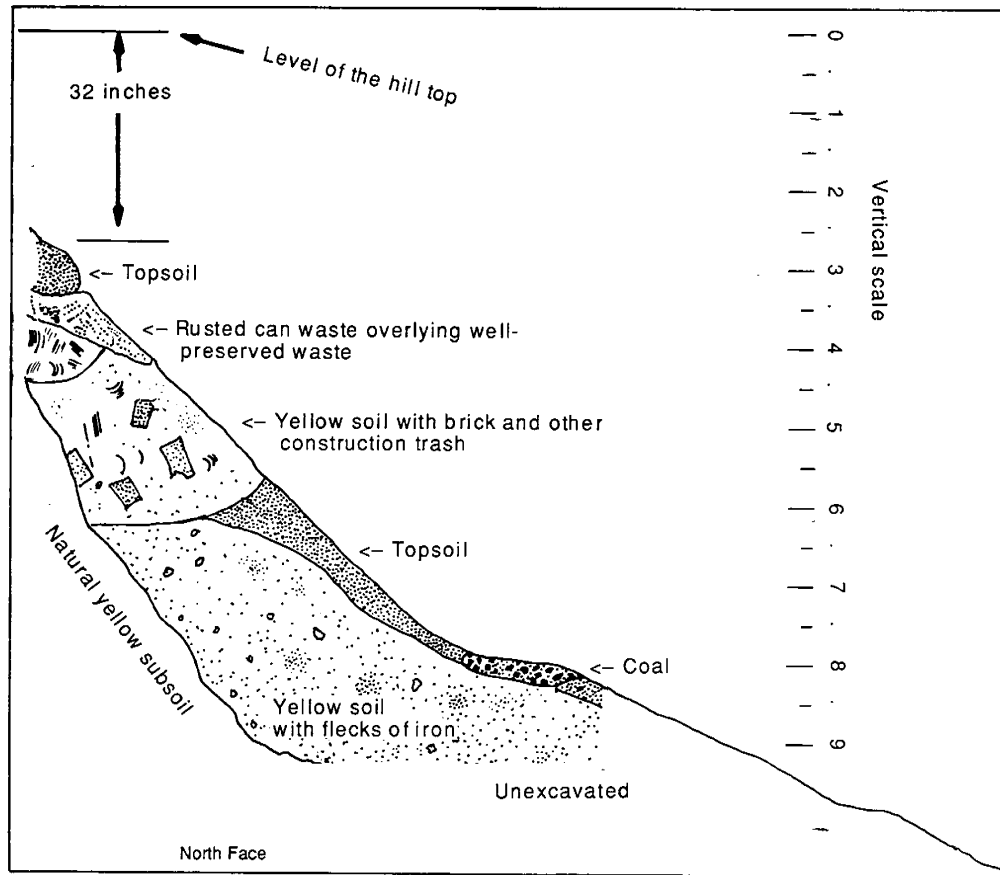


Figure 16  
**Profile through the dump, ER 89**

ER 90, the apparent layer of can waste at the south end of the site, proved to be the slumped fill of a trench, the purpose of which is yet unclear. The second machine scraping of this area showed the end of the substantial robbed brick wall and the extent of the feature (FIGURE 17).

A trench hand-dug across the feature revealed two periods of construction, one fire, and subsequent abandonment of the feature while the cannery was still operating.

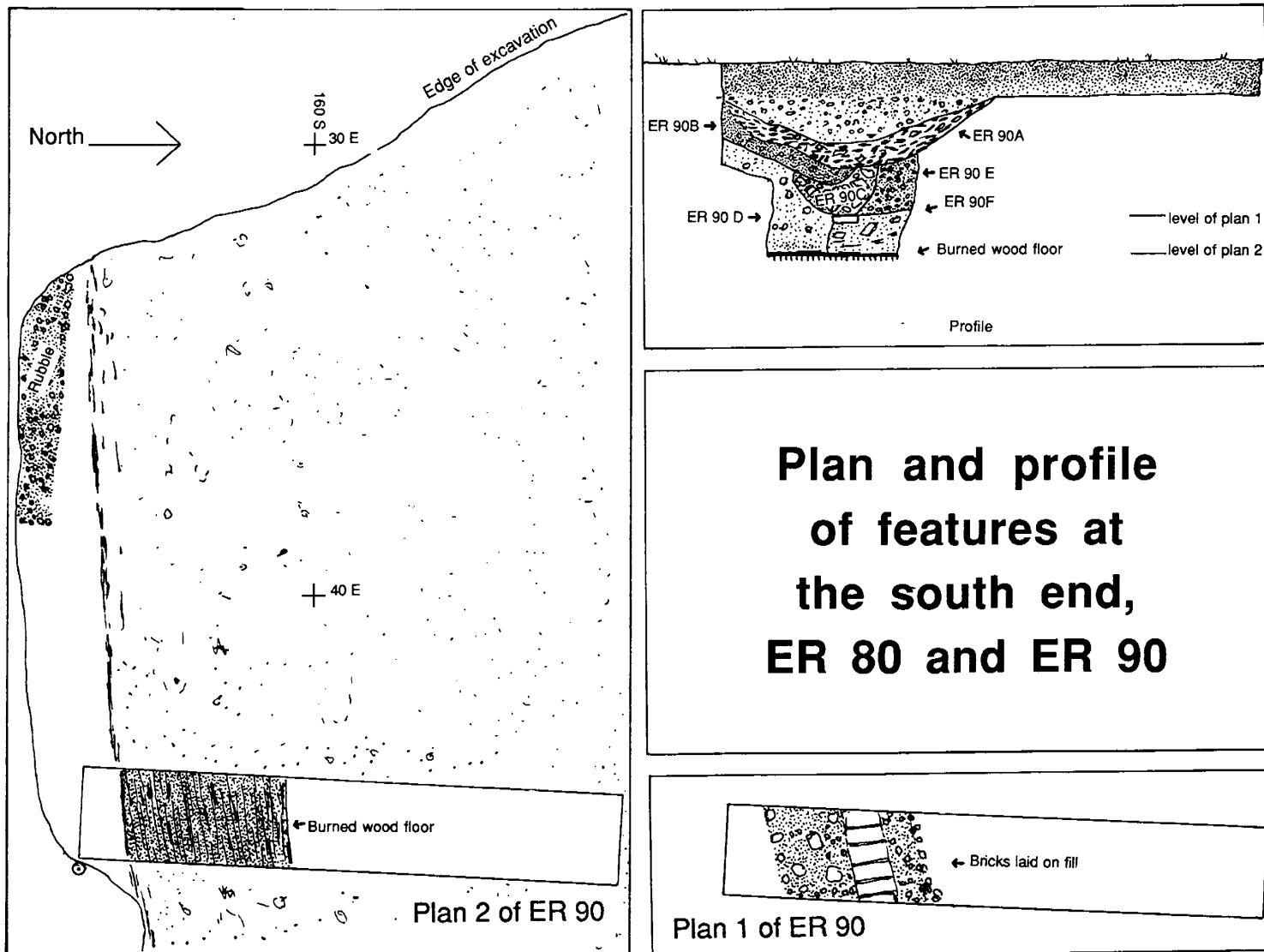


Figure 17

Immediately under the topsoil was a layer of rubbly brown earth, consisting of mortar and brick chips mixed with topsoil. When it was cleared away, a dished layer of can waste, ER 90A, was revealed. This can waste lay on a layer of mottled yellow fill, ER 90B, which gave the appearance of having been intentionally placed in the hole. ER 90C clearly was a robbed wall, consisting of mortar and brick chips in a matrix of brown earth, not unlike the material that sealed the whole deposit; at its bottom was a header course of bricks still in place, laid on fill. Under the fill was a layer of burned boards, an apparent floor.

The bottom layer of fill was laid in soon after the floor burned, for its underside had the red tint typical of burnt earth.

From its location and the evident rebuildings, this trench clearly was a part of the cannery operations. The two most likely explanations are that it was a drain or a conveyor, possibly the conveyor that connected the cannery with the wharf below.

The last trench, ER 91, was sited to solve a mystery. During excavation of the northeast corner of the main building, it was clear that the waste pile over the side of the hill was laid against the wall, leaving no room for the ten-foot side wing mentioned in the insurance policies. Moreover, the can waste actually overlay the brick footer at the supposed building corner.

A machine-dug cut (FIGURE 18) through the corner of the site revealed a brick pier, just ten feet from the wall, somewhat downhill. Behind the pier was a pocket of coal and ash, evidently waste from an active coal-burning industrial process. Above that was a layer of charcoal, as if waste from a fire. This deposit was tightly packed and full of pieces of decidedly modern plastic sheeting. Above the charcoal, apparently sealing it completely, was a stratum of clean can-making waste, over which lay more coal ash.

If this observation were correct, dating of the entire site was a century too early, and someone should remember the cannery fire. There was, however, a perfectly reasonable explanation for the "sealed" deposit of plastic sheeting.

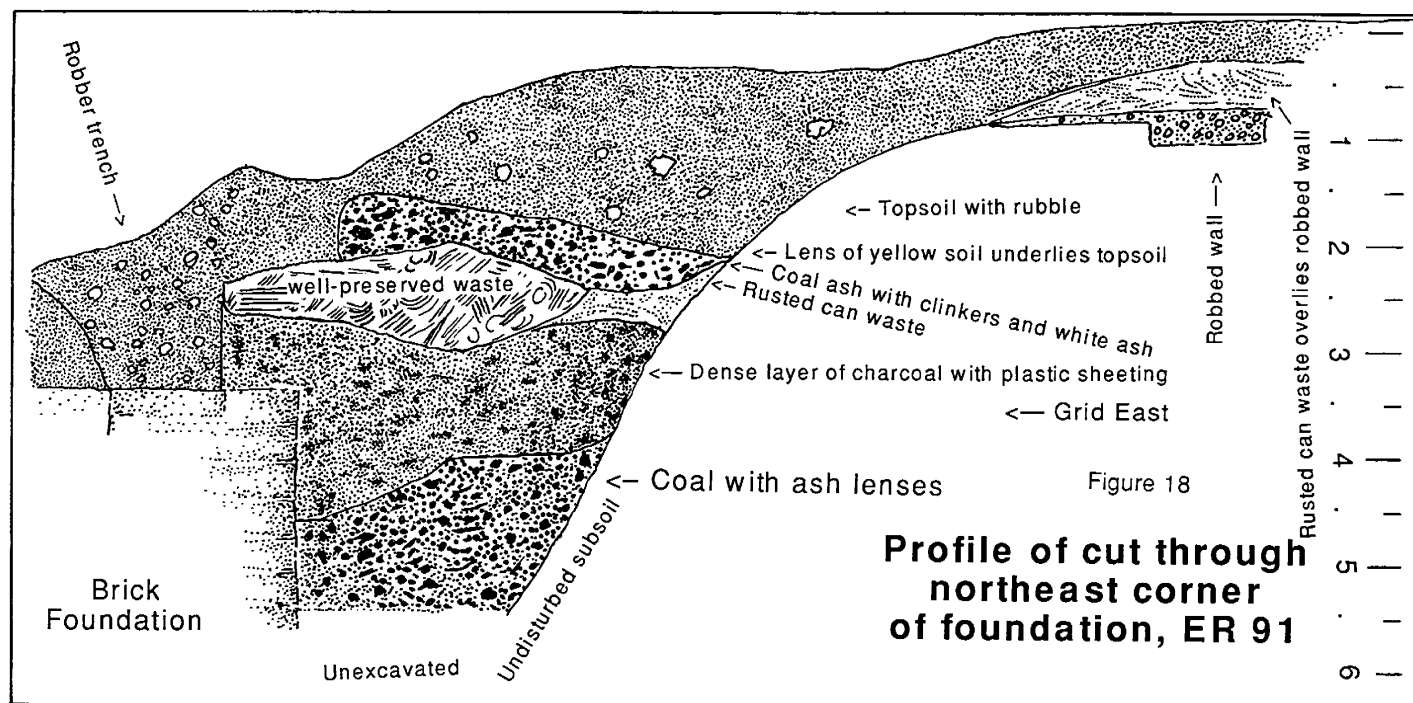






Plate 44

Aerial view of the site from the southeast, with cannery superimposed; compare plate 2, p. 4.

Undisturbed rubble-filled topsoil covered the entire deposit. It blended into a robber trench, which penetrated to the surviving top of the brick pier and defined the eastern edge of the deposits behind the pier line. Except for the plastic sheeting, the strata observed in this trench gave the impression of being the result of successive cannery-period activities. The charcoal layer, which could be interpreted as the remains of the first fire, seemed to be much newer; bits of plastic sheeting were intimately mixed with the charcoal, and sealed by the can waste.

A rodent burrow a short distance away from the trench provided the answer to the mystery. This burrow was dug through the robber layer, under the dense can layers by way of a break. Kept dry by the can waste above, generations of rodents had nested in the loose charcoal, shifting some of their plastic

sheeting away from the living area. Since the charcoal was dry, loose and homogenous, the plastic became part of the matrix, indistinguishable from the original deposit, and no burrows were apparent in the excavated trench.

During the last week in May 1989, construction of the road began. The steamboat company scale house and the modern shed were knocked down, and the hill was cut back to make way for the new curve. No unexpected historic or archaeological remains were uncovered during construction of the road or the bridge; the entire project was monitored by the consultant and by DelDOT staff without results.



Plate 45

North wall of the cannery building, looking east from the corner